

### Safety Data Sheet acc. to OSHA HCS (HazCom 2012)

Printing date 08/28/2018

Reviewed on 08/28/2018

#### 1 Identification

- **Product identifier**
- **Trade name:** KS105 - Silica Reagent 2
- **Catalogue number:** 56Z010598, 56L010565, 56U010565, 56L010530, 56U010530
- **Application of the substance / the mixture:** Reagent for water analysis
- **Manufacturer/Supplier:**  
Tintometer Inc.  
6456 Parkland Drive  
Sarasota, FL 34243  
USA  
phone: (941) 756-6410  
fax: (941) 727-9654  
www.lovibond.us  
Made in Germany
- **Emergency telephone number:** + 1 866 928 0789 (English, French, Spanish)

#### 2 Hazard(s) identification

- **Classification of the substance or mixture** The product is not classified as hazardous.
- **Label elements**
- **GHS label elements** none
- **Hazard pictograms** none
- **Signal word** none
- **Hazard statements** none
- **Other hazards** No further relevant information available.

#### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** aqueous solution
- **Composition and Information on Ingredients:**  
Percent ranges are used due to the confidential product information.

CAS: 87-69-4 EINECS: 201-766-0 RTECS: WW 7875000	(+)-tartaric acid	⚠ Eye Irrit. 2A, H319	5-<10%
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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

#### 4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes (at least 15 min) under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink 1-2 glasses of water.  
If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed**  
after resorption:  
irritations  
gastric or intestinal disorders

(Contd. on page 2)

US

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 08/28/2018

Reviewed on 08/28/2018

Trade name: **KS105 - Silica Reagent 2**

(Contd. of page 1)

· **Indication of any immediate medical attention and special treatment needed:** No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Water, Carbon dioxide (CO<sub>2</sub>), Foam, Fire-extinguishing powder
- **Special hazards arising from the substance or mixture**  
The product is not combustible.  
Formation of toxic gases is possible during heating or in case of fire.  
Carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>)
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information**  
Collect contaminated fire fighting water separately. It must not enter the sewage system.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Ambient fire may liberate hazardous vapours.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
- **Advice for non-emergency personnel:** Wear protective equipment. Keep unprotected persons away.
- **Advice for emergency responders:** Protective equipment: see section 8
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Ensure adequate ventilation.  
Absorb with liquid-binding material (sand, diatomite, universal binders).  
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Advice on safe handling:** No special precautions are necessary if used correctly.
- **Hygiene measures:**  
The usual precautionary measures for handling chemicals should be followed.  
Wash hands before breaks and at the end of work.  
Do not eat, drink or smoke when using this product.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Protect from heat and direct sunlight.  
Protect from exposure to the light.  
Protect from humidity and water.
- **Recommended storage temperature:** 20°C +/- 5°C (approx. 68°F)
- **Specific end use(s)** No further relevant information available.

— US —  
(Contd. on page 3)

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 08/28/2018

Reviewed on 08/28/2018

Trade name: **KS105 - Silica Reagent 2**

(Contd. of page 2)

### 8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Engineering measures:**  
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See item 7.
- **Personal protective equipment:**
- **Breathing equipment:** Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter B
- **Protection of hands:**  
Preventive skin protection by use of skin-protecting agents is recommended.  
After use of gloves apply skin-cleaning agents and skin cosmetics.
- **Material of gloves**  
Nitrile rubber, NBR  
Recommended thickness of the material:  $\geq 0.11$  mm
- **Penetration time of glove material**  
Value for the permeation: Level  $\leq 1$  (10 min)  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**  
Safety glasses  
use against the effects of fumes / dust
- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment:**  
Do not allow product to reach sewage system or any water course.

### 9 Physical and chemical properties

· <b>Information on basic physical and chemical properties</b>	
· <b>Appearance:</b>	
Form / Physical state:	Fluid
Color:	Colorless
· <b>Odor:</b>	Odorless
· <b>Odor threshold:</b>	Not applicable.
· <b>pH-value at 20°C (68°F):</b>	1.5
· <b>Melting point/freezing point:</b>	Not applicable.
· <b>Initial boiling point and boiling range:</b>	Not determined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gas):</b>	Not applicable.
· <b>Ignition temperature:</b>	425°C (797°F) Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto-ignition temperature:</b>	Product is not self-igniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Flammability or explosive limits:</b>	
Lower:	Not applicable.
Upper:	Not applicable.
· <b>Oxidizing properties:</b>	none
· <b>Vapor Pressure at 20°C (68°F):</b>	23 hPa (17.3 mm Hg)
· <b>Density at 20°C (68°F):</b>	1.1 g/cm <sup>3</sup> (9.18 lbs/gal)
· <b>Relative density:</b>	Not determined.
· <b>Vapor density:</b>	Not determined.
· <b>Evaporation rate:</b>	Not determined.

(Contd. on page 4)

US

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 08/28/2018

Reviewed on 08/28/2018

Trade name: **KS105 - Silica Reagent 2**

(Contd. of page 3)

· <b>Solubility(ies)</b> <b>Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	Not determined.
· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	> 95 %
<b>Solids content:</b>	100.0 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** see section "Possibility of hazardous reactions"
- **Chemical stability** Stable at ambient temperature (room temperature).
- **Possibility of hazardous reactions** Aqueous solution reacts with metals.
- **Conditions to avoid** Strong heating (decomposition)
- **Incompatible materials:** aluminum, copper, zinc, metal ions
- **Hazardous decomposition products:** see section 5

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

### · LD/LC50 values that are relevant for classification:

**CAS: 87-69-4 (+)-tartaric acid**

Oral	LDLo	7500 mg/kg (rat) (RTECS)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** No sensitizing effects known.

### · Information on components:

**CAS: 87-69-4 (+)-tartaric acid**

Sensitization	OECD 406	(guinea pig: negative)
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### · Carcinogenic categories

#### · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

#### · NTP (National Toxicology Program)

None of the ingredients is listed.

#### · OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· **Other information:** see section 8 / 15

· **Synergistic Products:** None

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):** The following statements refer to the mixture:

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

· **Carcinogenicity** Based on available data, the classification criteria are not met.

· **Reproductive toxicity** Based on available data, the classification criteria are not met.

· **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.

· **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.

· **Aspiration hazard** Based on available data, the classification criteria are not met.

(Contd. on page 5)

# Safety Data Sheet

## acc. to OSHA HCS (HazCom 2012)

Printing date 08/28/2018

Reviewed on 08/28/2018

Trade name: **KS105 - Silica Reagent 2**

(Contd. of page 4)

· <b>Information on components:</b>	
<b>CAS: 87-69-4 (+)-tartaric acid</b>	
OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test)
· <b>Additional toxicological information:</b>	
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.	

## 12 Ecological information

· <b>Toxicity</b>	
· <b>Aquatic toxicity:</b>	
<b>CAS: 87-69-4 (+)-tartaric acid</b>	
EC50	135 mg/l/24h (Daphnia magna)
· <b>Persistence and degradability</b> No further relevant information available.	
· <b>Other information:</b> Quantitative data on the ecological effect of this mixture are not available.	
· <b>Bioaccumulative potential</b>	
<b>CAS: 87-69-4 (+)-tartaric acid</b>	
log Pow	-1 (.) (calculated) (Merck)
· <b>Mobility in soil</b> No further relevant information available.	
· <b>Other adverse effects</b> Avoid transfer into the environment.	

## 13 Disposal considerations

· <b>Uncleaned packagings:</b>	
· <b>Recommendation:</b> Disposal must be made according to official regulations.	
· <b>Recommended cleansing agent:</b> Water, if necessary with cleansing agents.	

## 14 Transport information

· <b>UN-Number</b>	
· <b>DOT, IMDG, IATA</b>	none
· <b>UN proper shipping name</b>	
· <b>DOT, IMDG, IATA</b>	none
· <b>Transport hazard class(es)</b>	
· <b>DOT, IMDG, IATA</b>	
· <b>Class</b>	none
· <b>Packing group</b>	
· <b>DOT, IMDG, IATA</b>	none
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	Not dangerous according to the above specifications.

— US —  
(Contd. on page 6)

# Safety Data Sheet

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Printing date 08/28/2018

Reviewed on 08/28/2018

Trade name: **KS105 - Silica Reagent 2**

(Contd. of page 5)

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

• <b>Section 355 (Extremely hazardous substances):</b>
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None of the ingredients is listed.
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• <b>Section 313 (Specific toxic chemical listings):</b>
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None of the ingredients is listed.
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• <b>TSCA (Toxic Substances Control Act):</b>
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All ingredients are listed.
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• <b>Proposition 65</b>
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• <b>Chemicals known to cause cancer:</b>
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None of the ingredients is listed.
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• <b>Chemicals known to cause reproductive toxicity for females:</b>
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None of the ingredients is listed.
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• <b>Chemicals known to cause reproductive toxicity for males:</b>
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None of the ingredients is listed.
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• <b>Chemicals known to cause developmental toxicity:</b>
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CAS: 7487-94-7   mercury dichloride
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• <b>New Jersey Right-to-Know List:</b>
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CAS: 7487-94-7   mercury dichloride
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• <b>New Jersey Special Hazardous Substance List:</b>
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CAS: 7487-94-7   mercury dichloride	CA, MU, R1
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• <b>Pennsylvania Right-to-Know List:</b>
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CAS: 7487-94-7   mercury dichloride
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• <b>Pennsylvania Special Hazardous Substance List:</b>
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CAS: 7487-94-7   mercury dichloride	E
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• <b>EPA (Environmental Protection Agency)</b>
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None of the ingredients is listed.
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• <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
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None of the ingredients is listed.
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- **Information about limitation of use:** Not required.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• <b>Relevant phrases</b>
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H319 Causes serious eye irritation.
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• <b>Date of preparation / last revision</b> 08/28/2018 / 1
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• <b>Abbreviations and acronyms:</b>
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OECD: Organisation for Economic Co-operation and Development
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STOT: specific target organ toxicity
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SE: single exposure
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RE: repeated exposure
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EC50: half maximal effective concentration
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IC50: half maximal inhibitory concentration
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NOEL or NOEC: No Observed Effect Level or Concentration
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ACGIH® - American Conference of Governmental Industrial Hygienists
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•A1 - Confirmed human carcinogen
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•A2 - Suspected human carcinogen
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•A3 - Confirmed animal carcinogen with unknown relevance to humans
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•A4 - Not classifiable as a human carcinogen
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•A5 - Not suspected as a human carcinogen
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IARC - International Agency for Research on Cancer
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•Group 1 - Carcinogenic to humans
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•Group 2A - Probably carcinogenic to humans
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•Group 2B - Possibly carcinogenic to humans
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•Group 3 - Not classifiable as to carcinogenicity to humans
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(Contd. on page 7)

US

# Safety Data Sheet

acc. to OSHA HCS (HazCom 2012)

Printing date 08/28/2018

Reviewed on 08/28/2018

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**Trade name: KS105 - Silica Reagent 2**

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(Contd. of page 6)

•Group 4 - Probably not carcinogenic to humans  
NTP - National Toxicology Program, U.S. Department of Health and Human Services  
•Group K - Known to be Human Carcinogens  
•Group R - Reasonably Anticipated to be Human Carcinogens  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

• **Sources** Data arise from safety data sheets, reference works and literature.

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